

*Inclusive Green Economy in Practice*  
**Policy instruments for an  
inclusive green economy**

Lessons learned from a joint cross-country workshop  
in the East Africa region.



UNIVERSITY OF  
GOTHENBURG

*Academics need to roll up their sleeves and get into the kitchen,*  
said Maris Wanyera, one of the civil servants in the workshop.

*But the kitchen door is locked!*  
Responded Professor Richard Mulwa.

The joint efforts during this workshop, 23 – 24 november 2021, on sharing experiences of strategies and policy instruments for an inclusive and green economy, brought the civil servants and academics into the same kitchen, discussing recipes for policy mixes that lead us towards an inclusive green economy.

Let's talk about these recipes with policymakers and roll up our sleeves for a decade of action!



**GOTHENBURG CENTRE FOR  
SUSTAINABLE DEVELOPMENT (GMV)**



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## Inclusive Green Economy in Practice

The Inclusive Green Economy (IGE) in Practice program is a capacity development program to increase the knowledge and application of environmental economic policy instruments, organizational change, and strengthen national systems for inclusive and sustainable economic development.

The program is financed by the Swedish International Development Cooperation Agency (Sida) and is implemented by the University of Gothenburg via Gothenburg Centre for Sustainable Development (GMV) and the Environment for Development Initiative (Efd) in collaboration with Efd centers with Efd centers and partners in the five East African countries: Ethiopia, Kenya, Rwanda, Tanzania and Uganda.

Read more about the program here: [gu.se/en/inclusive-green-economy-in-practice](https://gu.se/en/inclusive-green-economy-in-practice)



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SWEDISH INTERNATIONAL  
DEVELOPMENT COOPERATION AGENCY



Anonymous person in  
Addis Abeba, by Gift  
Habeshaw

# Introduction

To achieve Agenda 2030, every country needs to get the economic incentives right and make sure to leave no one behind. In other words, we need a transformation towards an inclusive green economy. Such transformation requires increased knowledge on, and capacity to apply policy instruments such as bans, taxes, fees, subsidies, permits, and refund systems.



The Inclusive Green Economy (IGE) program aims to strengthen the national and regional capacity of using effective policy instruments in practice in Ethiopia, Kenya, Rwanda, Tanzania, and Uganda. To gain further knowledge on what works and what doesn't, civil servants and academics in the program met in a two-day workshop to discuss the current use of policy instruments in four sectors in East Africa. This report is a summary of these discussions and key lessons learned.

In the East African region, there is a strong focus on economic growth aiming to reduce poverty and to become middle-income countries. The region is faced with challenges of growing populations and scarce resources as well as institutional instability and climate change. A transformation towards a green and inclusive economy requires a long-term commitment and also trust in institu-

tions. Weak institutions and political instability can quickly change those conditions. Reorganization of ministries and agencies, corruption, and abrupt changes in governments can slow down the process of Inclusive Green Economy (IGE) reforms.

The question raised during this workshop was how to make the economic growth in East Africa more sustainable. The workshop was based on National Policy Reviews (NPRs). Those reviews were co-created by academics and civil servants in the five East African countries and provide learning materials on current strategies, policies, and policy instruments for an inclusive green economy. They focus on four key sectors in the region: Agriculture, forest, energy, and urbanization. Over 350 different policy instruments were identified in the NPRs and categorized into these four policy instrument types.



Earth from space,  
by NASA

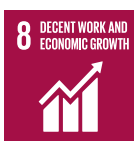
### Categorization of policy instruments:

Price-based	Right-based	Regulatory	Information-based
<ul style="list-style-type: none"> <li>• Taxes</li> <li>• Charges, fees, tariffs Deposit-refund</li> <li>• Refunded charges Subsidies</li> </ul>	<ul style="list-style-type: none"> <li>• Tradable permits/quotas</li> <li>• (Green) certificates</li> <li>• Common property resources management</li> </ul>	<ul style="list-style-type: none"> <li>• Bans</li> <li>• Performance/technology standards</li> <li>• Permits</li> <li>• Zoning</li> </ul>	<ul style="list-style-type: none"> <li>• Voluntary agreements</li> <li>• Information disclosure</li> <li>• Labeling initiatives</li> <li>• Public participation</li> </ul>

Source: Adapted from Sterner et al. (2019<sup>1</sup>)

This report presents a brief overview of the current IGE strategies in the five countries, some of the joint challenges of the four sectors, key issues shared, and lessons learned in connection to policy instruments used for IGE reforms per sector. This is part of

the learning materials co-created within the IGE program where the focus is on SDG 8: Sustainable economic growth and decent working conditions – and the increased use of economic policy instruments.



**Sustainable Development Goal number 8:**  
*Decent work and economic growth – Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.*

## Reflections and take-home messages from the workshop

1. *An overview of policy instruments is needed.*

The creation of the NPRs and the discussion during the workshop highlighted the need for an easily accessible overview of the policy instruments implemented to reach each country's IGE strategy. This would increase the knowledge of the policy instruments that are in place and facilitate coordination and evaluation. Understanding what works and what doesn't is essential when moving forward with IGE and decoupling economic growth from environmental degradation.

2. *Monitoring and evaluating policies is important for success.*

All countries are struggling with inefficient implementation and a lack of enforcement of the existing policy instruments. Clear responsibility for the monitoring and evaluation of policy is important for effective IGE reforms.

3. *The countries in the region must collaborate to share experiences and harmonize their use of policy instruments.*

The heavy reliance on charcoal and fuelwood is a joint challenge in the region, but the policy instruments used vary. This has generated unwanted spill-over effects in neighboring countries. Examples include the ban on charcoal production in Kenya and the charcoal tax in Tanzania, which resulted in increased demand for

charcoal from Uganda where such policy instruments are not in place. The increased demand raised charcoal prices and increased deforestation in Uganda. This was one of several areas where there is a need for increased collaboration in the region to get a better policy harmonization and goal achievement. The East African community has coordinated efforts on several policy areas<sup>2</sup> such as plastic pollution and vehicle emissions, which can be further developed into other policy areas.

4. *Strong institutions, stakeholder engagement, and public awareness are crucial for successful policy instrument implementation.*

In all five countries, there are IGE strategies and several policy instruments in place, but the enforcement is not effective enough. There are three important factors for successful enforcement: sufficient institutional capacity to monitor (such as inspection, measuring, reporting, and verifying emissions), problem awareness among the general public, and private sector engagement. The bans on plastic bags, which have been implemented in Kenya, Rwanda, and Tanzania, are examples where there has been a strong political will to move forward with implementation, which has included public awareness campaigns and collaboration with private sector organizations. Meanwhile, in Uganda, the implementation of a similar ban was met with resistance and in Ethiopia, no policy instruments have been implemented so far.



*5. Bridging the gap between academia and public policymaking.*

In general, there is a lack of evaluation of IGE strategies and related policy instruments. Reasons for this are the lack of human resources with the right capacities but also the lack of financial resources and data, for example on updated environmental statistics. Knowledge of the positive and negative impacts of policy instruments is crucial to reaching set objectives. One area where this was debated was in agriculture, where several policy instruments aim at increasing productivity to reduce poverty, for example, price-based policy instruments such as subsidies on fertilizer. The need for assessments, which also include environmental aspects, before and after implementation is important to find an

evidence-based policy mix that enables a transition to an inclusive green economy. This is a good example of where a bridge between academia and civil servants is one solution.

*6. The cross-country IGE network is needed.*

Sharing experiences between countries faced with similar challenges gives an added value both by learning about good examples and by learning about new policy instruments. Participants from Kenya concluded for instance that Uganda's user-rights for fisheries resources are something that Kenya can learn from and analyze for their usage.



**Population density<sup>3</sup> & country size<sup>4</sup> - People/km<sup>2</sup> (2020) & km<sup>2</sup>**

<p><b>RWANDA</b></p> <p><b>525/km<sup>2</sup></b></p> <p>26 338km<sup>2</sup></p> 	<p><b>UGANDA</b></p> <p><b>228/km<sup>2</sup></b></p> <p>241 038km<sup>2</sup></p> 	<p><b>ETHIOPIA</b></p> <p><b>102/km<sup>2</sup></b></p> <p>1 104 300km<sup>2</sup></p> 	<p><b>KENYA</b></p> <p><b>94/km<sup>2</sup></b></p> <p>580 367km<sup>2</sup></p> 	<p><b>TANZANIA</b></p> <p><b>67/km<sup>2</sup></b></p> <p>947 300km<sup>2</sup></p> 
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## Population size (million people) in 2020<sup>5</sup> / 2030<sup>6</sup> / 2050<sup>7</sup>

	ETHIOPIA	TANZANIA	KENYA	UGANDA	RWANDA
<b>2020</b>	114.9M	59.7M	53.7M	45.7M	12.9M
<b>2030</b>	144.9M	79.2M	66.4M	59.4M	16.2M
<b>2050</b>	205.4M	129.4M	91.6M	89.5M	23M

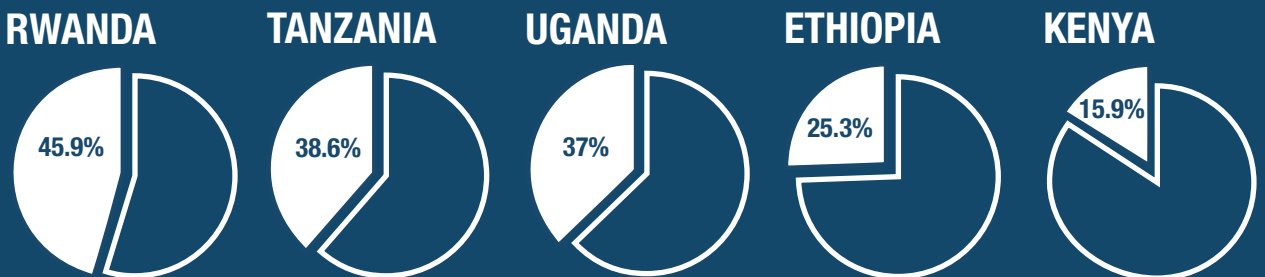


## GDP/Capita<sup>8</sup> - USD/Capita (2020)

KENYA	TANZANIA	ETHIOPIA	UGANDA	RWANDA
<b>1878\$</b>	<b>1076\$</b>	<b>936\$</b>	<b>822\$</b>	<b>798\$</b>



## Poverty rate<sup>9</sup> - Percent of population below 1.9\$ / day (2020)



# Strategies for an inclusive green economy in East Africa

## A brief overview



East Africa is facing several joint sustainable development challenges. Population growth leads to over-exploitation of natural resources such as land and forest and growing demand for agricultural products. Other challenges are inefficient agricultural practices, climate change, increased traffic, pollution and waste, unsustainable and inefficient energy sources (such as fossil fuels, charcoal, and firewood), and increased unplanned urbanization. This has led to several national

strategies aiming to steer the economic developments towards a greener and more inclusive pathway.

In table 1, the main national IGE strategies in the participating countries are listed together with the responsible organization. This shows that explicit green economy strategies are in place in four out of the five countries. Tanzania, which is the exemption, does however emphasize the importance of reversing current

**Table 1 - Main IGE strategy per country**

Country	Main national IGE strategies	Year of implementation and valid until	Which organization is mainly responsible for monitoring?
<b>Ethiopia</b>	The Climate Resilient Green Economy Strategy (CRGE)	2011 – 2030	Environmental Protection Authority (Previous EFCCC)*
<b>Kenya</b>	Green Economy, Strategy and Implementation Plan	2016-2030	Ministry of Environment and Forestry
<b>Rwanda</b>	Green Growth and Climate Resilience Strategy (2021)	2011 revised in 2021-2050	Ministry of Environment
<b>Tanzania</b>	Tanzania Development Vision 2025	1999-2025	President's Office - Planning Commission
<b>Uganda</b>	The Uganda Green Growth Development strategy	2017-2031	Ministry of Finance, Planning, and Economic Development; Office of the Prime Minister

\*Previous Environment, Forest and Climate Change Commission, EFCCC



Gathering in silhouette, by  
Javier Allegue Barros

trends in the degradation of natural resources and the environment in its vision. In addition to these strategies, there are several cross-sectoral and sector-specific plans and programs. However, here we have chosen to only highlight the main strategies per country.

An inclusive green economy is not limited to a single sector and must involve national government as well as the regional and local governments, public and private sector, and civil society. This calls for smooth coordination in implementing the IGE strategies. Today ministries and agencies at different levels and other stakeholders are not cooperating enough. Different sectors must also communicate to avoid unwanted impacts of one policy on another sector. It is essential to thoroughly assess the national circumstances to identify sectorial policies impact on other sectors during the design and development of policies.

The cross-country comparison conducted of the strategies and organogram showed a variation on how involved the subnational governments are in the implementation. For instance, Uganda seems to have a more national-oriented structure compared to the other countries. However, in the case of Ethiopia which has a structure involving multi-level governance, the number of IGE activities that trickle down to the local level is still perceived as low.

There is also a great variation in the financing of the IGE reforms in the five countries. Financing sources including domestic, international, and private sector resources for IGE implementation are important. It is a challenge to find a financial balance between international funding and national revenues for IGE reforms. There is still an untapped potential to use environmental taxes to increase public funds, and engage the private sector further.

# The Agriculture Sector

How can we promote a more sustainable production?



East Africa's economies are slowly transitioning from being mainly dependent on agriculture to a higher dependence on the service sector.<sup>10</sup> However, agriculture is still important and the main sector in terms of employment in all the five countries. It is generally characterized by smallholders with mixed farming,<sup>11</sup> low productivity, and little technological development. The irrigation level of agricultural land is low, meaning that rain-fed farming is the most common.<sup>12</sup> This makes the sector highly vulnerable to the impacts of climate change, including more frequent droughts and floods. Both smallholders and commercial agricultural production also harm the environment. Unsustainable practices cause soil erosion, loss of soil fertility, loss of biodiversity, and ecosystem services. For example, the use of chemical fertilizers,

to increase agricultural yields, has serious impacts on the surrounding environment, while intensified and inefficient agricultural production leads to soil depletion, pollution, loss of ecosystem services, and water shortage. This kind of exploitation may be profitable in the short term but will harm the environment, productivity, and livelihood opportunities in the long term. Thus, the question is, how to cater to the need for a strong agricultural sector, the need for food security to feed the growing population and creating employment opportunities while reducing the environmental impact. The discussions during the workshop focused on sharing experiences of how these challenges have been approached and how to increase productivity in a green and inclusive way.

**Table 2 - Key indicators for the agriculture sector**

Country	Agricultural land cover (2018) <sup>13</sup>	Rural population (2020) <sup>14</sup>	Agr. contribution to employment (2019) <sup>15</sup>	Use of fertilizer* <sup>16</sup>	Irrigation of agr. land (2019) <sup>17</sup>
Ethiopia	34%	78%	67%	36 kg	2%
Kenya	49%	72%	54%	16 kg	0.6%
Tanzania	45%	65%	65%	16 kg	1%
Uganda	72%	75%	72%	3 kg	0.1%
Rwanda	73%	82%	62%	11 kg	0.5%

\*"Fertilizer consumption (kilograms per hectare of arable land)".



Tea plantations in Kenya,  
by Boby Vj

East African countries face many similar challenges within the agricultural sector. All are for instance affected by climate change and the Covid-19 pandemic. They have poor access to new technology, lack data, and resources, and suffer from soil degradation, erosion, and water pollution. Strategies, policies, and plans in the countries emphasize the need for development and increased productivity for economic growth and food security. They aim at a transition from subsistence farming to modern and commercial production. To achieve this, you depend on new innovative practices and the adoption of new technologies. But the adoption of new technology is low especially for the many smallholder farmers. As an example, in Tanzania, only 20 percent of the farmers use improved seed or mineral fertilizers.<sup>18</sup> The social and environmental aspects are less emphasized. But some countries, such as Ethiopia and Rwanda, stress the importance of the environment and reducing poverty.

The countries in the region use different policy instruments to some extent. Most of them seem to aim at increasing productivity and do not adequately include the aspect of reducing environmental impacts. Kenya uses mostly price-based and regulatory policy instruments. The price-based are mainly subsidies such as support to small-scale irrigation through the construction of irrigation schemes, fertilizer subsidies, and e-voucher systems for subsidized agricultural inputs. In Ethiopia and Rwanda price-based instruments are also commonly used but in combination with information. In Rwanda, right-based policy instruments are also used. Uganda and Tanzania use regulatory instruments more often, but together with information, right-based, and price-based policy instruments. In fisheries, for instance, this is done by controlling access to fisheries via a user-right management system, to monitor, control, and surveil water bodies and licenses for fishing boats.

## Key issues shared

*In general, policy instruments aim to increase agricultural production and productivity rather than reduce negative environmental impacts.* The policy instruments are not designed to include social and environmental components. An example is subsidies given to fertilizers. The IGE participants see a need to evaluate policy instruments from the perspective of an inclusive green economy, to capture social and environmental impacts. There is a need for capacity building of civil servants to conduct the evaluations, as well as of policymakers to demand them.

*Environmental components have been included when designing policy instruments for irrigation systems.* Irrigation levels are low in all the countries (< 2.3 percent) and several countries have implemented policy instruments to promote this. This is mainly done via subsidies for setting up irrigation systems. There are some examples where environmental concern has been taken into account in designing policies. In Uganda solar panel-driven irrigation is promoted. In Rwanda, an environmental impact assessment is mandatory before implementing any development projects.

*Digital tools are important to support every part of the agricultural value chain:*

The other countries can learn from Rwanda's use of digital tools, for example, for monitoring, reporting, and verification and to reduce inefficiencies in the entire value chain.

## Key lessons learned

*There is still untapped potential within the agricultural sector* to pursue a development that will create green jobs, accelerate poverty reduction, support sustainable growth and restore environmental health and quality. Designing policy instruments that combine economic, social, and environmental goals would help to achieve this.

*There are many challenges and difficulties in implementing price-based instruments, especially taxes.* Taxes and fees provide an opportunity to raise revenues to the government, and at the same time correct the price signals by including environmental impacts for the consumers. However, the price-based instruments implemented today in the region are mainly direct subsidies or indirect via an exemption from value-added tax (VAT). Some exceptions are fees on the water used for irrigation in Tanzania and Rwanda. There are political difficulties in implementing taxes, since subsidies are easier to get public acceptance for, and there is a fear that taxes may slow down the development. One reason for the low acceptance of taxes is the corruption and misuse of collected revenues. Therefore, how raised revenues are used is one important factor, but also awareness-raising campaigns and (private) stakeholder inclusion (which today is low in most cases) to gain acceptance.

*Many policy instruments vs few policy instruments?* There can be negative effects when there are many potentially overlapping or contradicting policies. The implementation and impact are more important than the number. Fewer policies can be more efficient. The mix of policies is also important. Using information-based and price-based economic policy instruments together strengthens the enforcement.



## Participants



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# The Energy Sector

## How can we enable an inclusive and green energy transition?



In all East African countries, improving access to clean and reliable energy is important for public health, economic growth, and environmental quality. Fuelwood and charcoal are used widely for cooking and heating. In Uganda and Tanzania, over 85 percent of the population uses firewood and charcoal for cooking and heating. Common policy measures to improve energy access in the five countries are expanding access to the electricity grid, off-grid electricity solutions, promotion of liquefied petroleum gas (LPG) for cooking, and major investments in energy and electricity production facilities.

Taxes, subsidies, and other price-based instruments are the most common policy instruments used in this sector. For example, taxes on charcoal are used in Tanzania, and subsidies of LPG cylinders have been used in Kenya, Ethiopia and Rwanda. Fuel taxes and levies are im-


portant sources of tax revenue, but none of the five countries have implemented a specific carbon tax. Different types of regulatory instruments are also common. For example, Kenya has regulations on the energy efficiency of different types of products and technologies. Information-based instruments are used to some extent, but right-based instruments, for instance, emission trading systems, are not used in any of the countries.

Large investments have been made to increase the production of energy and electricity. This includes wind, solar and geothermal energy, but also hydro-power, natural gas, oil, and coal. However, expanding production does not necessarily improve the energy access of poor households. It's a great challenge to create balanced fee structures, which enable both energy access and sustainable financing of energy production.

**Table 3 - Key indicators for the energy sector**

Country	Access to electricity (2019) <sup>19</sup>	Renewable energy usage (2015) <sup>*20</sup>	Percentage of households using forest resources/charcoal as the main energy source for cooking <sup>**</sup>
Ethiopia	48%	86%	>90% <sup>21</sup>
Kenya	70%	73%	75% <sup>22</sup>
Tanzania	38%	86%	90% <sup>23</sup>
Uganda	41%	89%	90% <sup>24</sup>
Rwanda	38% <sup>***25</sup>	87%	96% <sup>26</sup>

*\*Including: solar, wind, geothermal, hydropower, bioenergy and marine sources. \*\*Ethiopia and Kenya: year 2018, Tanzania: years 2017/2018, and Uganda: year 2020. \*\*\*38.9 in 2020.*

A photograph of a wind turbine in a misty, orange-hued landscape. The turbine is white and stands on a tall tower. The background is a soft, hazy sky with a warm, golden light, suggesting either dawn or dusk. The overall mood is serene and atmospheric.

Wind turbine in the mist,  
by Sander Weeteling

### Key issues shared

*Many different instruments are used to reduce the heavy reliance on charcoal and fuelwood for cooking.* This includes the ban on charcoal in Kenya, the Tanzanian tax and fees on charcoal production, transports and sales, Ethiopian biogas subsidies to rural communities for cooking and lightning, subsidies for clean cooking technologies in Rwanda, and media campaigns in Uganda to stimulate households to use less fuelwood. Experiences from using this variety of instruments were discussed.

*There is no proper analysis of the effects of the policy instruments used.* Since very few evaluations have been conducted, the great potential for deeper policy learning between the countries on these issues remains untapped. Examples of when poor analysis had resulted in inadequate policy design were discussed. For instance, following the introduction of kerosene

subsidies in Tanzania and Kenya to reduce the use of charcoal, cheap kerosene was instead used to dilute gasoline which affected the transport sector. The subsidy needed to be retracted.

*Taxes, subsidies, and bans in one country can have unintended effects in neighboring countries.* As the economies of the East African countries are partly integrated, there are many examples of cross-border effects from policy implementation. The Kenyan ban on the production of charcoal is one example. The ban led to an increase in charcoal production and exports to Kenya from neighboring Uganda, which does not have a similar ban. The increased demand for Ugandan charcoal has raised charcoal prices and increased deforestation in Uganda. Another example is the Kenyan subsidy of LPG-cylinders for low-income households, which lead to contraband imports of Kenyan LPG-cylinders in Uganda.

*Expanding the electricity grid is important, but not a guarantee for energy access.* The East African countries make great investments in expanding the electricity grid. For example, Rwanda aims at providing all households with electricity by 2024. The grid is planned to reach 52% of the households and 48% are planned to have access via off-grid solutions. Large investments are also made in electricity generation through hydropower, geothermal, solar, and wind in several countries. As these investments are costly (often relying on foreign loans), it will be a great challenge to provide affordable energy for rural households. One effect of this problem is that several countries struggle with illegal connections to the grid. The design of electricity tariffs is hence important for the inclusive energy policy. Uganda is testing methods for payment in advance when loading electric appliances, “pre-paid metering”, a method that, for example Rwanda and Kenya has been using for many years. This makes it possible to have access to clean energy even in very low quantities and avoids the accumulation of unpaid electricity bills. Following this, Rwanda has changed their electricity tariff scheme from a flat rate to a so called “lifeline” tariff for electricity consumption below 15 kWh per month, which means a reduced tariff for low-income households.

*Successful regulation requires adequate enforcement capacity.* Different types of technology standards and other types of regulations are frequent in the energy sector in East Africa. A common problem is that there is not sufficient capacity to monitor and enforce regulations in the energy sector. As a result, there are frequent problems with for example counterfeit solar panels, the quality of “improved” cookstoves, and buildings and products that don’t live up to energy efficiency standards.

*There is a need to improve the tax collection system.* The capacity to collect the revenue from taxes needs to be taken into account when designing energy-related taxes. While fuel taxes are relatively easy to collect, as they can be levied on imports or production, collecting taxes on charcoal has proven to be much more difficult, as there are many small producers. The tax in Tanzania has in practice only been collected from big dealers who are transporting charcoal from rural to urban areas.

Another important issue is whether revenues from energy taxes should be earmarked and channeled back to the sector or households. In most cases, the taxes are collected by the Ministry of Finance and added into the consolidated fund, not by the designated energy sector authorities. This makes it difficult to track whether revenue is used properly to address the energy issue at the community level and may lead to resistance to paying taxes. On the other hand, earmarking many different sources of revenue can make public financial management very ineffective.

*Stakeholder involvement is needed for the acceptance of energy policy.* The review of the policies and instruments used for a green transformation of the energy sector in the five countries shows that there is room for improved involvement of the rural communities as well as private sector actors in policy design and implementation. At the policy design stage, there should be more analysis of which stakeholders are likely to win and lose from the proposed policy reform. If those who are likely to lose in the short run are not consulted and compensated it may be difficult to implement the policy. The reviews conducted indicate that there is a large gap in knowledge about the distributional consequences of energy reforms.

## **Key lessons learned**

*Improve the knowledge on what works - collaborate with academia!* Research and policy analysis are needed to better understand which energy-related policy instruments are effective to achieve the intended targets? Ministries and agencies working with policy design need to enhance their capacity for policy analysis. Academia can also contribute to evaluating the implementation of policy instruments, identifying gaps, and providing recommendations.

*Enhance regional collaboration and policy harmonization.* Even though four of the five countries are part of the East Africa Community (EAC) there is insufficient collaboration and synchronization during policy design and implementation. The negative spill-over effects from policy instruments linked to charcoal is an indicative example. Harmonizing policies at the regional level is important to solve unintended negative impacts of policies implemented in one country on neighboring countries. In areas where they face similar challenges, countries can implement joint programs, and where countries experience different challenges, they can also share experiences to adopt solutions or policies used in other countries.

*Private sector investments, including international climate financing, are needed to speed up the green energy transition.* Countries need to bring on board the private sector to support the implementation of IGE in the energy sector. Different actors in the energy sector need to be consulted on the policy design to ensure that it's sustainable.

## Participants



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# The Forest Sector

How can we promote more sustainable forest management?



Deforestation in East Africa is mainly driven by agriculture expansion, inefficient production and use of charcoal, and demand for fuelwood. In contrast to Southeast Asia and South America where large plantations, farms, and ranches are the main drivers of deforestation, smallholders continue to cause forest losses in East Africa.<sup>27</sup> Forests play a key role in mitigation and adaptation to climate change. The recovery of forest land in East Africa is important to reduce the loss of human lives and property loss from floods, landslides, erosion, and siltation as well as support biodiversity and eco-tourism. The sector is also an important source of income from the production of charcoal, timber, medicinal herbs, food, wild fruits, and honey. However, timber production in the region struggles with low productivity of tree crops and not much added value. This is due to climate change, the small

genetic base of tree crops, emerging pests and diseases, low investments in technology development, and poor investment in the forest-based industry. The East African countries – Ethiopia, Kenya, Tanzania, Rwanda, and Uganda – have national strategies, policies, and propositions to guide sustainable forest management. The focus of forest policies in the region is mainly on afforestation, reforestation, and forest management. The forest sector is also highly affected by policies in other sectors, especially agriculture (for instance promoting agriculture intensification on existing agricultural land) and energy (such as subsidies for efficient stoves, and other advanced cooking and baking technologies). During the workshop, the challenges in the forest sector as well as the experience of the use of different types of policy instruments were discussed.

**Table 4 - Key indicators for the forest sector**

Country	Tree cover (2015) <sup>28</sup>	Tree cover loss (2000-2015) <sup>29</sup>	Carbon emissions due to tree cover loss (2000-2015) <sup>30</sup>	Forest (land) ownership
Ethiopia	11%	4%	193 MtCO <sub>2</sub> eq	State-owned
Kenya	5%	11%	176 MtCO <sub>2</sub> eq	State-owned
Tanzania	26%	10%	910 MtCO <sub>2</sub> eq	State-owned
Uganda	29%	12%	413 MtCO <sub>2</sub> eq	State- and private-owned
Rwanda	21%	8%	23 MtCO <sub>2</sub> eq	State-and community-owned



### Key issues shared

*The role of the forest is diverse with different types of policy instruments being used.* Forests play a crucial role in the IGE reforms in East Africa, in the adaptation and mitigation strategies for climate change as well as contributing to people's livelihood. With a growing population, the pressure on land is also increasing. The countries use different policy instruments to promote more sustainable management of forests. Some instruments are used more often than others. Information-based policy instruments such as the use of public information, labeling initiatives (such as eco-labeling of charcoal produced with efficient technologies) and providing information (such as translating and disseminating guidelines to the tree nurseries operators, county governments, and the private sector) seems to be commonly used instruments, especially in Ethiopia and Kenya. A protected area is

a regulatory instrument that is used in all five countries. Examples of price-based instruments used in East Africa are fees and royalties connected to the harvesting of timber and non-timber forest products, hunting, tree seed and seedlings, and payment for ecosystem services.

*Tree planting campaigns and tree seedling nurseries are common policy instruments in the region to restore forests.* Ethiopia runs a campaign to plant 8.6 billion trees in three years and Uganda 40 million trees in a year. Rwanda runs a campaign for zero carbon emissions by the year 2050, by increasing green spaces, green villages, green fences – increasing tree cover – and encouraging more concentrated urbanization and increased productivity in agriculture to prevent forest conversion into settlement and agriculture – decreasing deforestation.

The use of public spaces to increase tree cover was highlighted as a way forward in the tree planting campaigns. For instance, in Kenya tree-planting campaigns in schools combine education on the role of trees in the landscape with an increase of the tree cover. The increasing demand for cashew nuts has led to an increase in cashew nut trees in Tanzania which has a positive economic effect due to the profitability in cashew nuts production. However, the expansion of cashew nuts brings some environmental challenges. It might for instance come at the expense of natural forests which could undermine the production of cashew nuts as yields drop with less natural vegetation around.<sup>31</sup>

*Funding for tree planting campaigns is diverse.* The funding sources differ between the countries. Ethiopia relies on financing from civil society and international organizations as compared to Uganda which largely depends on state and private sector financing. However, private companies in Uganda are encouraged to invest more in tree-planting by providing land-use contracts for up to fifty years conditioned on a forestry plan where part of the land must be shared with the local community. Such arrangements allow for increasing timber production with value sharing between the private company and the local community.

*Time to diversify the tree species in tree planting campaigns.* Without diversity of tree species in the landscape, monocultures are created with low biodiversity and low resilience. The lack of evaluation of the survival rate makes it difficult to evaluate the long-term success of the current tree-planting campaigns. Low public awareness of the importance of forests was also pointed out as a challenge to get citizens willing to voluntarily manage the planted trees and without proper management, survival rates are expected to be low.

*Several of the ecosystem services provided by the forest lack market values* and are hence often not valued at all. It's necessary to increase the economic valuation of forest resources for instance by attaching values to existing forest reserves. Economic valuation of forest resources demonstrates the importance and contribution of forests in the development processes and provides evidence that helps to make a case for their prioritization in the public budgeting and resource allocation.

*A more cross-sectional approach is needed to reverse the trend of forest loss in East Africa.* Policies and policy instruments are often not connected between sectors, making policies instruments in one sector contra-productive in another.

## Key lessons learned

*Harmonization of forest regulations across the region to increase total forest cover:* The East African countries are highly connected through trade and policies impacting the forest cover positively in one country might backfire in another. This calls for the harmonization of policies across the region.

*Using a policy mix:* A balance between different types of policy instruments: Regulatory, right-based, price-based, and information-based are needed to navigate the complexity of sustainable forest management. For instance, the importance of combining a subsidy for tree planting campaigns with information regarding the importance of forest was highlighted as one key element to increase the survival rate of planted trees and hence the success of increasing tree cover in the region.

*Science and practice need to meet:* For example, in the popular tree-planting campaigns it is often one single species, sometimes not even native, that is promoted. Science shows that monocultures are much less resilient to climate change and fungal and insect infestations. Rigorous evaluation studies are rare in East Africa which makes it hard to evaluate the effectiveness of the forest policies used. This highlights the need to create stronger bridges between academia and civil servants to build capacity.

*Make conservation of forest more profitable:* Poverty is one of the main drivers of deforestation in East Africa. Smallholders' needs to expand their agricultural land will not decrease until the forests create more value than the agricultural land. Hence, promoting non-timber forest products such as beekeeping, eco-tourism, and sustainable forestry is needed to make forestry a desired part of an IGE in East Africa. In other words, make sure that it becomes more profitable to keep the trees standing.

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# The Urbanization Sector

## How can we cope with rapid urbanization?



The rapid urbanization over the last decades is a global trend. 30 percent of the world's population lived in cities in 1950 and 55 percent in 2020.<sup>32</sup> The East African region is no exception. Large cities, such as Nairobi, Addis Ababa, and Dar Es Salaam, have already 5-7 million inhabitants.<sup>33</sup> This trend is forecasted to continue in the region and indicates that Ethiopia and Tanzania will be part of the nine countries that will constitute the home of more than half of the expected population growth until 2050.<sup>34</sup> Even though cities drive economic growth and offer opportunities to thrive for many, the increasing unplanned urbanization and emerging megacities also present many challenges from the perspective of being inclusive and green. During this session, different approaches were shared and discussed regarding how we can create sustainable urban areas.

There are several sectors and challenges converging in the urban environment. The discussions addressed mainly four

areas: urban planning, plastic use, transportation, and waste management. Some common challenges were identified, such as uncertain land ownership, air pollution, and increased solid and liquid waste. There are no proper waste management systems and infrastructure, and an increase in informal settlements.

The diverse and numerous challenges are reflected in the different policy mixes implemented in each country. The policy instruments are mainly non-economic. Two problems with the regulating instruments are the high enforcement cost and that state-forced regulation is prone to corruption. Economic policy instruments have the advantages of raising revenues and being easier to enforce. One example from Rwanda of an economic policy instrument is the subsidies for the development and access to affordable housing. Other examples are the use of parking fees in Ethiopia and Uganda, as well as fuel taxes.

**Table 5 - Key indicators for the urbanization sector**

Country	Land tenure insecurity (2020) <sup>35</sup>	Urban population (2020) <sup>36</sup>	Urban population, annual growth (2020) <sup>37</sup>
Ethiopia	26%	22%	5%
Kenya	28%	28%	4%
Tanzania	22%	35%	5%
Uganda	26%	25%	6%
Rwanda	8%	17%	3%





Nairobi sunrise silhouette,  
by Joseph Ndungu

### Key issues shared

The low participation of the private sector in the management of urban areas in the region is an important aspect to consider. One example of how this can be done is from Rwanda. Here the private sector has been engaged in the transition towards sustainable transport, for instance in operating public transport (but the government is still the regulator) and in transitioning to e-mobility. In the latter case, the common mode of urban transport is Boda-Bodas, that is motorbikes, which are targeted to be converted into electric propulsion. Pilots with electric Boda-Bodas have also been implemented by UNEP in Uganda and Kenya.<sup>38</sup> Rwanda has a strategy to increase the share of electric mobility to 30 percent already by 2023/2024 and to 70 percent by 2034/2035. To reach this ambitious

target several policy instruments have been proposed in a strategic paper by the Ministry of Infrastructure, such as reduced tariffs for charging electric vehicles on off-peak hours, VAT exemptions on e-vehicles, and related equipment along with emission standards for conventional vehicles.<sup>39</sup> Revenues raised from various taxes, environmental fees, and fines are some of the sources for financing the environmental and climate change investment fund FONERWA. Even though these revenues still constitute a minor share of the investment fund, this is a unique setup in the region and an inspirational example for the other countries.

Other key issues discussed among the civil servants and academics are presented per sector: Transport, waste, and the regulation of plastic bags.

## Transport sector

*Using parking fees to reduce traffic volumes:* Parking fees is a policy instrument to curb car use in urban areas. This is for example applied in Addis Ababa, Nairobi and in Kampala. However, the enforcement in Addis Ababa has been a struggle due to problems with removing cars with unpaid parking fees or incorrect parking. In Kampala and other major cities in Uganda the introduction of parking fees has not reduced the volumes of traffic.

*The importance of social acceptance for successful enforcement:* Different restrictions on importing old cars have been or are about to be implemented in all countries in the region, to reduce air pollution and accidents. The government of Kenya tried in 2019 to gradually lower the import ban limit from 8-year-old cars to: 5 years in 2019, 3 years in 2021 and 0 years in 2023. But this change was impossible to enforce due to strong protests and the likelihood of large loss of revenues by the government. Restrictions on importation of older and more polluting cars has however not led to a switch to newer vehicles.

*Policy instruments for regulating vehicle emissions:* Rwanda has emission standards for vehicles, along with vehicle inspections before the issuing of licenses. Heavy-duty commercial vehicles have to be inspected twice a year. An upper limit exists on the number of years vehicles are allowed to operate.

*Inspirational examples for sustainable mobility:* Car-free days and zones are used in Rwanda to encourage more active modes of transport. In Uganda, the Kampala Capital City Authority (KCCA) is constructing green roads with pedestrian walkways in highly congested areas of the city center to avoid the use of high emitting motorbikes and cars. Similar initiative has been implemented in Kenya with the aim to support the design of beautiful, safe, walkable, and liveable streets in urban areas. A manual for this was developed with support from Global Road Safety Program and the World Bank.<sup>40</sup>

*Potential co-learning on upcoming Bus Rapid Transit in the region:* Coming experiences can also be shared on more efficient public transport since Kenya, Uganda, Tanzania and Rwanda plan to implement dedicated bus lanes, so-called Bus Rapid Transit (BRT).

## **Waste**

Waste management of solid and liquid waste is, in general, a common challenge in all countries. With the rapidly increasing population, the pressure increases on the weak waste management infrastructure.

*An Integrated Solid Management Framework* with strategies involving all layers of government is very important to achieve urbanization that is compliant with an IGE. This is important since there is no proper solid waste management system for the segregation, reuse, and recycling of wastes.

*Procurement of private companies to handle waste:* There are limited synergies with the private sector in waste management in most of the participating countries. The need to improve this was addressed for its potential to for example create investment in infrastructure like recycling plants. Exceptions are Rwanda and Kenya, where the private sector is an active part when it comes to waste management via licensed private companies handling the waste, financed by payments from households.

*Investing in waste-to-energy plants:* This is a way of utilizing the waste and creating a value of the waste by converting it into electricity. It can also reduce pollution and disease spreading from landfills. In Addis Ababa, the first waste-to-energy plant in Africa was built in 2018 in a collaboration between the Ethiopian government and international companies. In Kenya, a plant is built with funding from African Development Bank.<sup>41</sup>

*E-waste policies and recycling facilities to handle increases in e-waste:* E-waste is a big and increasing segment within waste management in the region. This was especially highlighted as a concern in Uganda. Examples from Kenya and Rwanda of coping with this kind of recycling were presented. A national policy on e-waste was implemented in Kenya, which has resulted in the creation of e-waste collection centers. In Rwanda, e-waste is collected directly from institutions and taken to recycling facilities instead of previously being sent to landfills.

### Plastic bags

A ban on plastic bags has been implemented in all the countries, except Ethiopia. In Rwanda, a ban is also issued for single-use plastic, however, with several exemptions due to the lack of alternatives at the moment. Even though the same policy instruments have been implemented in these countries the outcomes vary.

*The inclusion of manufacturers, awareness campaigns, and political commitments are success factors when introducing a plastic ban:* However, in Uganda, the enforcement of the ban has failed. The reasons for this are the lack of political goodwill, the lack of alternatives to the thin plastic bag, poor engagement of stakeholders, and limited public awareness. Success factors from the enforcement in Kenya (2017) and Tanzania (2019) were that the private sector was provided with enough time to adjust their production to alternative products once the plastic ban was being enforced, awareness-raising campaigns, and political commitment. An additional success factor in Rwanda was also the zero tolerance to corruption. Uganda is now stepping up its efforts to enforce its ban.<sup>42</sup>

*The need for harmonizing plastic bag policies to avoid fraud:* Since the plastic bag ban is not enforced in Uganda traders are smuggling plastic bags across the borders. This is one example of an area where harmonization is needed and where Uganda and Ethiopia could benefit from the lessons learned in their neighboring countries.

### Key issues learned

*Strong land ownership security is an important factor for sustainable urbanization* especially to be able to implement well-functioning right-based policy instruments. Good protection of land ownership and user rights requires strong laws and institutions for their enforcement. Rwanda has automated its processes, such as an online system for land acquisition and construction permit applications. The effectiveness of the Rwandan system is reflected in the land tenure security indicator, which scores much higher than the other countries in the region.

*Political will and public engagement are important for IGE implementation:* These two factors are important but equally challenging due to for instance inadequate funding, politically sensitive issues (sacred cows), and a lack of public and political awareness of environmental impacts.

*Mandatory to evaluate the government-funded project on IGE aspects:* One lesson learned from sharing experiences is that it should be required for projects to encompass inclusive green economy aspects before implementation, to receive government funding or permission.

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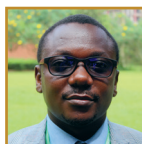
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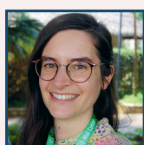
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